

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-4. (canceled)

5. (currently amended) A structure, comprising:

a metallic material having a surface, the metallic surface having a surface roughness (Ra) being not more than 1.5 μ m; and

a chromium-oxide passivation film providing an outermost surface, said chromium oxide passivation film formed by coating directly onto the metallic material surface a chromium film having a thickness of at least 100nm, baking the chromium film directly onto the metallic material surface at a temperature of 100°C to 200°C and heating [[a]] the baked chromium film coated directly onto the metallic material surface in an oxidizing atmosphere, wherein,

said chromium-oxide passivation film is substantially 100% chromium oxide approximately 30 nm from the outermost surface,

[[a]] chromium ~~layer~~ of said baked chromium film which is not oxidized remains between said chromium-oxide passivation film and said metallic material, and said chromium ~~layer~~ remains

adhered to the metallic material so that said chromium-oxide passivation film is coupled to said metallic material, and

said chromium-oxide passivation film has pin holes, and said pin holes are sealed.

6. (currently amended) An article, comprising:

a metallic body having a surface, the metallic body surface having a surface roughness (Ra) being not more than 1.5 μ m; and

a chromium-oxide passivation film providing an outermost surface, the chromium oxide passivation film formed by coating directly onto the metallic material surface a chromium film having a thickness of at least 100nm, baking the chromium film directly onto the metallic material surface at a temperature of 100°C to 200°C and heating [[a]] the baked chromium film coated directly onto the metallic material surface in an oxidizing atmosphere, wherein,

the chromium-oxide passivation film is substantially 100% chromium oxide approximately 30 nm from the outermost surface, and

[[a]] chromium ~~layer~~ of said baked chromium film which is not oxidized remains between the chromium-oxide passivation film and the metallic material, and the chromium ~~layer~~ remains adhered to the metallic material so that the chromium-oxide passivation film is coupled to the metallic material.

7-8. (canceled)

9. (currently amended) A structure, comprising:

a metallic body having a surface, the metallic body surface having a surface roughness (Ra) being not more than 1.5 μ m; and

a chromium-oxide passivation film providing an outermost surface, the chromium oxide passivation film formed by coating directly onto the metallic material surface a chromium film having a thickness of at least 100nm, baking the chromium film directly onto the metallic material surface at a temperature of 100°C to 200°C and heating [[a]] the baked chromium film coated directly onto the metallic material surface in an oxidizing atmosphere, wherein,

the metallic body surface defines a continuous boundary between the metallic body and the chromium-oxide deposit,

the chromium-oxide passivation film is substantially 100% chromium oxide approximately 30 nm from the outermost surface, and

[[a]] chromium ~~layer~~ of said baked chromium film which is not oxidized remains between the chromium-oxide passivation film and the metallic material, and the chromium ~~layer~~ remains adhered to the metallic material so that the chromium-oxide passivation film is coupled to the metallic material.

10-12. (canceled)

13. (currently amended) A structure, comprising:

a metallic material having a surface, the metallic surface having a surface roughness (Ra) being not more than 1.5 μ m; and

a chromium-oxide passivation film formed by coating directly onto the metallic material surface a chromium film having a thickness of at least 100nm, baking the chromium film directly onto the metallic material surface at a temperature of 100°C to 200°C and heating [[a]] the baked chromium film coated directly onto the metallic material surface in an oxidizing atmosphere, wherein,

at least approximately 30nm from an outermost surface of the chromium-oxide passivation film consisting of substantially 100% chromium-oxide, and

[[a]] chromium ~~layer~~ of said baked chromium film which is not oxidized remains between the chromium-oxide passivation film and the metallic material, and the chromium ~~layer~~ remains adhered to the metallic material so that the chromium-oxide passivation film is coupled to the metallic material.

14. (previously presented) The structure according to claim 5, wherein said chromium-oxide passivation film does not substantially include an element of said metallic material.

15. (previously presented) The structure according to claim 14, wherein said metallic material is stainless steel.

16. (previously presented) The structure according to claim 14, wherein said element is Fe or Ni.

17. (canceled)

18. (previously presented) The structure according to claim 5, wherein said chromium-oxide passivation film is free from cracks.

19. (previously presented) The structure according to claim 6, wherein, said chromium-oxide passivation film has pin holes, and said pin holes are sealed.

20. (previously presented) The structure according to claim 9, wherein, said chromium-oxide passivation film has pin holes, and said pin holes are sealed.

21. (previously presented) The structure according to claim 13, wherein, said chromium-oxide passivation film has pin holes, and said pin holes are sealed.